Pedestrian Connectivity

for MAG Bike/Ped Committee March 21, 2017

Contact: Tiffany Halperin, PLA, LEED AP

tiffany@urbanculturedesign.com

602.7170702

Introduction

- Tiffany Halperin, PLA, ASLA, LEED AP 7 yrs business owner, 20yrs exp.
- The Urban Culture Design Project (www.urbanculturedesign.com)

The Urban Culture Design Project is committed to community development. We are strategic urban designers that love urban life, town cores, and are dedicated to community building on scales that range from local to regional and neighborhood to city. We design for people and believe in the role and process a community's culture plays in informing the design of urban places. Simply, we recognize the role of the built environment in effecting positive change in our urban communities by offering social impact design services.

ASU Research Grant (UVCC) Urban Vulnerability to Climate Change



UVCC: What Science Tells Us about Heat & Health

- Extreme heat kills more people than any other natural hazard in the U.S.
- Heat deaths are caused by direct exposure and by increased susceptibility to preexisting cardio vascular, respiratory, and other diseases.
- Extreme heat increasingly threatens global health.
- The highest temperatures and highest morbidity and mortality associated with extreme heat occur in cities.

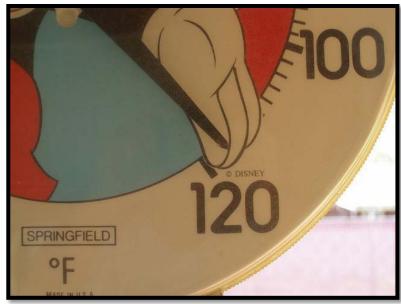


Photo: 118 Degrees in Phoenix, AZ

UVCC: What Science Tells Us about Heat & Health

- Neighborhoods in the same cities have different temperatures (UHI effect).
- Low income and ethnic minority populations live in the most climaticallystressed neighborhoods and possess the fewest resources to cope with extreme heat.
- Physiological changes occur in the human body when chronically exposed to high night-time temperatures.



Photo Credit: Tiffany Halperin

UVCC: What Science Tells Us about Heat & Health

- Urban temperatures > rural temperatures
- Causes of UHI
 - Alterations to natural surface from urbanization
 - Influence of urban fabric, structure, cover and metabolism
- Intra-urban temperatures vary with different land use & land cover
- Distinct difference in daytime and night time UHI intensity

UVCC: Recent Heat Disasters Around the World

- India 1978 1999: 225 heat waves, numerous deaths
- Chicago 1995: 700 dead
- Western Europe 2003: 35,000 dead
- Russia 2010: 15,000 dead
- United States 2012: Most record breaking (high) temperatures in one summer in recorded history
- 2017 Hottest Year Ever





Photo Credit: Seattle Times

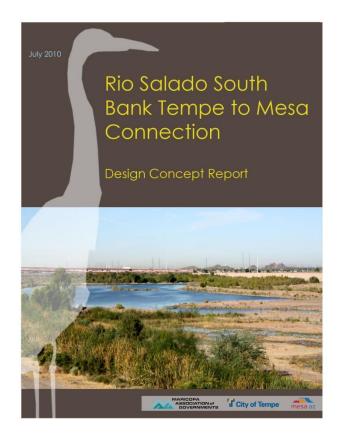
UVCC: What We Know About Heat & Health in Phoenix

- Daily hours of discomfort
- Changes in urban heat island since 1998
- Urban Climate Models
- Urban Cool Park Effect

The Challenge of Heat in Creating Connectivity in Phoenix

- Infrastructure such as street trees
- Funding and/or political will
- Ability of communities to self-advocate
- Awareness and advocacy surrounding building materials
- Location
- Land acquisition

Regional Connectivity: Rio Salado





Regional Connectivity: Rio Salado Mesa









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Regional Connectivity: Transit









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Regional Connectivity: Canal System

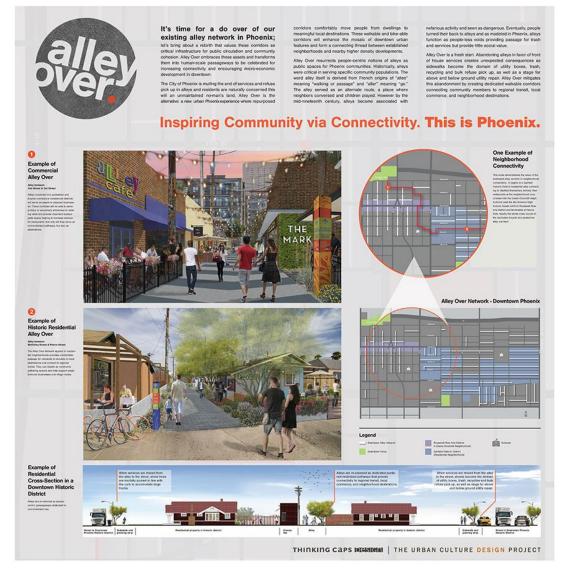


NACTO - What is happening nationally?



- Attended 3 Out of 5 Conferences
- SF and Seattle International Districts
- Next Step for Phoenix after Regional Connectivity

Creative Thinking About Connectivity



Urban Resilience



THE URBAN CULTURE DESIGN PROJECT tiffany@urbanculturedesign.com 602.7170702